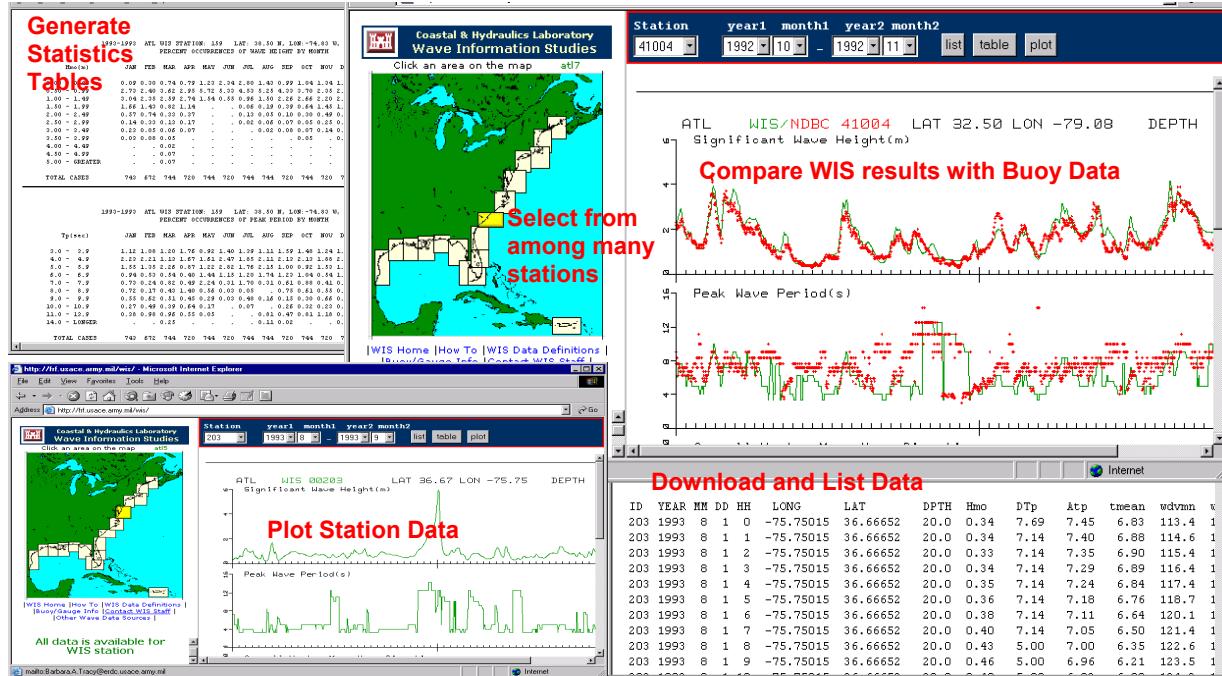


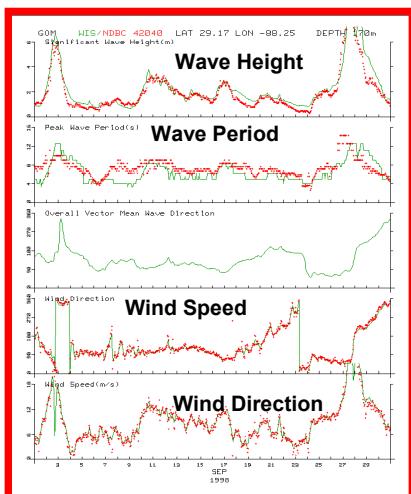
# Coastal and Hydraulics Laboratory Wave Information Studies (WIS)

Hindcast Wave Data for U.S. Coasts

**WIS releases NEW website for 1980-1999 Atlantic and Gulf of Mexico wave information GO TO <http://frf.usace.army.mil/wis>**



The WIS project produces a high-quality online database of hindcast, nearshore wave conditions covering U.S. coasts. The hindcast data provide a valuable source of decades-long wave data needed in coastal engineering design, at dense spatial resolution and at a level of temporal continuity not available from measurements. Updated hindcasts for the Atlantic and Gulf coasts, from 1980-1999, have just been completed. The hindcast wave conditions were produced using the latest updated version of the numerical ocean wave generation and propagation model, WISWAVE, along with state-of-the-art wind fields produced by Oceanweather, Inc., as a value-added improvement to AES-40 wind fields. Wave data for a dense network of output stations that follow 15 to 20-m depth contours along the coast are available. Data include hourly wave parameters: significant wave height, peak period, mean period, mean wave direction, and wind speed and direction. Parameter information can be easily downloaded for use as input into nearshore coastal process models. Directional spectral information at 3-hour intervals is also available from the WIS staff.



**WIS DATA QUALITY** - 1980-99 Gulf and Atlantic WIS information compares well with all available NDBC buoy measurements. The figure to the left shows a comparison of WIS results with measurements from NDBC buoy 42004 (off Louisiana) for the month of September, 1998. Hurricane Earl, a Category 2 hurricane moved over this area August 31-September 8. The plot also shows Hurricane Georges, a category 4 hurricane which made landfall nearby at the end of September. Note the excellent agreement for both waves and winds.

**2004 ENHANCEMENTS** - new parallel processing routines for state-of-the-art computer efficiency in hindcast production; **1980-1989 Atlantic and Gulf hindcast information added to website.**

**ON-GOING and NEXT-YEAR ACTIVITIES (2005)** - Test hindcasts for the Great Lakes; Pacific hindcasting forensics; Website improvements including more data processing and analysis capabilities.

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